



EPOXYPRIME POWDER COATING

TECHNICAL DATA SHEET

INTRODUCTION

OXYPLAST EPOXYPRIME is an epoxy-based thermosetting powder coating formulated to give a satin finish with very good flow-out. It is used as a primer over aluminium and zinc coated steel for long term use in heavy industrial and environmental applications.

GLOSS AND COLOUR RANGE

Satin finish- 50-60% gloss.
Beige in colour.

APPLICATIONS

Used as a primer in such applications as heavy machinery/equipment, architectural aluminium, outdoor furniture.

APPLICATION SCHEDULE

May be applied by electrostatic spraying using classic devices which can provide a negative tension of 60 - 80kV.
Optimal film thickness: 60 - 80µm.
The powder is cured in a suitable convection or infra-red oven.
Curing:
***Partial cure of Epoxyprime: 5 mins @ 180°C or 10 mins @ 130°C to promote adhesion of the Polyester top coat (or similar).**
Full cure is obtained when curing the top coat at the recommended schedule.

SUBSTRATES AND PRE-TREATMENT

May be applied to the following substrates after the appropriate cleaning and conversion coating:

Ferrous metals (cold-rolled steel, cast iron, etc.)	:	Iron or zinc phosphatation
Zinc surfaces (galvanised steel, zinc alloy)	:	Chromatation or zinc phosphatation
Aluminium alloys	:	Chromatation

STORAGE

At temperatures not exceeding 30°C and under dry conditions, Epoxyprime may be stored for up to 6 months without affecting their free-flowing properties. The coating thus obtained will still have optimal characteristics.

PROPERTIES OF THE POWDER

Melting range (Kofler)	:	66 - 90°C
Specific gravity (DIN 55990/3)	:	1.40 – 1.75 (depending on colour)
Particle size distribution, % above 100µm	:	0%
% above 32 µm	:	50 – 60%

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PROPERTIES OF THE COATING

Physical and Mechanical The following are properties typical of Epoxyprime determined on 0.8mm gauge degreased galvanised steel:

Film Thickness	:	60 - 80µm
Gloss (ASTM D523,60°)	:	60 - 100%
Flow-out	:	Very good
Adhesion (din 53151 – 2mm spacing)	:	GT = 0
Pencil hardness (ASTM D3363-Staedtler Lumograph)	:	H – 2H
Buchholz hardness (DIN 53153)	:	91 – 111
Sclerometre hardness	:	400 – 800gms
Conical mandrel (ASTM D522)	:	< 4mm
Direct impact (ASTM D2794 – 0.625 in. Diameter ball)	:	> 80kg.cm
Reverse impact (ASTM D2794 – 0.625 in. Diameter ball)	:	> 80kg.cm
Erichsen cupping (DIN 53156)	:	> 8mm
Heat resistance, 30 mins at 200°C	:	Yellowing

Salt-Spray Resistance

According to ASTM B117-73 on,	
Chromated aluminium, 2000 hours	: No blistering or loss of adhesion
Zinc phosphated steel, 1000 hours	: 3mm undercutting
Iron phosphated steel, 1000 hours	: 6mm undercutting

Chemical Resistance

Epoxyprime is resistant to many of the common inorganic acids, bases and salts, organic acids and certain organic solvents.

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